

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
South Jersey Ice and Cold Storage - Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region II**

**Subject:**           **POLREP #21**  
                  **Progress**  
                  **South Jersey Ice and Cold Storage**  
                  **A26W**  
                  **Vineland, NJ**  
                  **Latitude: 39.4895070 Longitude: -75.0235380**

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**From:**           Kelli Lucarino, On-Scene Coordinator

**Date:**           8/19/2016

**Reporting Period:** 8/13/2016 - 8/19/2016

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A26W	<b>Contract Number:</b>	EP-S2-15-01
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>		<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	6/28/2016	<b>Start Date:</b>	6/23/2016
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	06/23/2016
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

#### 1.1.2 Site Description

The site is a three-story ice manufacturing and cold storage facility in a downtown residential area of City of Vineland, and has been in operation since 1922. The current owner assumed operations around 1998. The facility's refrigeration system contains an estimated 4,500 to 10,000 lbs of anhydrous ammonia gas.

##### 1.1.2.1 Location

The cold storage facility is located at 544 East Pear Street in Vineland, Cumberland County, New Jersey. It is situated within a densely populated residential neighborhood, and there are numerous residential homes and apartments as close as approximately 100 feet from the facility.

##### 1.1.2.2 Description of Threat

Anhydrous ammonia is a CERCLA Extremely Hazardous Substance, a CAA 112(r) RMP Regulated Substance, and a US DoD and DOJ Category 1 Toxic Industrial Chemical (i.e., battlefield-deployable chemical weapon).

An inspection of the facility's refrigeration system by the City of Vineland Fire Department via a qualified consulting refrigeration engineer determined that the system is an extreme state of disrepair, to the extent that it presents an immediate threat to public safety. The engineer's recommendation is that since the necessary emergency repairs to the system would not likely be implemented in sufficient time, the ammonia should be immediately removed from the system to protect public and worker safety. EPA inspected the facility on June 23, 2016, and concurs with the concerns of the engineering report about the state of deterioration of the system and the immediate threat to public safety.

#### 1.1.3

#### Preliminary Removal Assessment/Removal Site Inspection Results

On June 23, 2016, EPA conducted an inspection at the facility in response to a report that was prepared by a refrigeration engineer consultant of the City of Vineland Fire Department (VFD) detailing the deteriorating state of the ammonia refrigeration system. Concerns included the poor condition and location of pressure relief discharge vents relative to the immediate homes and surrounding community; it is suspected that the system contains anywhere from 4,500 – 12,000 pounds (lbs) of anhydrous ammonia. It was determined that the facility could not mitigate the threat posed by the deteriorated system to the surrounding community in a timely manner.

Based on these concerns, the VFD requested EPA assistance with responding to the threat that the cold storage facility's refrigeration system presents to the surrounding residential community.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

EPA is continuing to respond to the deteriorating ammonia refrigeration system at a cold storage warehouse in a residential neighborhood. The facility's deteriorating ammonia refrigeration system (circa 1922) potentially contains 4,500 – 12,000 lbs of anhydrous ammonia gas liquefied under pressure, and presents a serious threat to the surrounding neighborhood should the system fail. Many sections of the ammonia system and the building have been frozen over, making the response more challenging. On June 28, 2016, EPA activated its Emergency and Rapid Response Services (ERRS) contractor to secure the system against a release and the Removal Support Team (RST) contractor to provide real-time 24/7 community air monitoring for ammonia gas.

#### **2.1.2 Response Actions to Date**

Activities for the reporting period of 8/13/2016 - 8/19/2016 include:

EPA ERRS contractor continued melting ice from the coils and valves of the refrigeration system on the second floor of the building and collecting the melt water. Transportation and disposal of the fluids began on Monday, 8/15/16 and continued through Thursday, 8/18/2016.

EPA's refrigeration subcontractor was on site Thursday, August 18, 2016 and Friday, August 19, 2016. The subcontractor ensured the refrigeration system was open and all liquid ammonia was removed from the system. The subcontractor encountered a section of coils in the basement that had been isolated from the remainder of the system which contained approximately 10 lbs. of ammonia. The ammonia was removed from the system via the scrubber unit. The pressure in the system is at 0 psi and all liquid ammonia has been removed from the refrigeration system. EPA has discontinued 24 hour air monitoring operations based on the liquid ammonia being removed from the system. EPA has completed recovering melt water from the facility, the majority of the ice has melted and there is no presence of recoverable melt water.

To date, EPA has removed approximately 9,700 lbs. of ammonia from the refrigeration system and disposed of approximately 37,300 gallons of brine fluid, 3,700 gallons of melt water and approximately 10,000 gallons of fluid from the scrubber unit. An additional 5,000 gallons of scrubber fluid remains contained in the frac tank. EPA will return Monday, August 22, 2016 to dispose of the remaining fluid as well as 3 55-gallon drums of waste oil collected from the compressor units on the refrigeration system.

At this time, EPA's operations at the site are complete with the exception of the remaining items for disposal and demobilizing equipment, scheduled for Monday, August 22, 2016.

Activities for the reporting period of 8/6/2016 - 8/12/2016 include:

EPA's ERRS contractor began using steam to accelerate the rate at which the ice melts from the coils and valves associated with the refrigeration system. As of 8/12/2016, the pressure in the system was 1.7 psi. Heavy icing on the coils is still present in the basement and second and third floors, west rooms. Tetra Tech was on site the morning of 8/12/16 to evaluate the stability of the structure in the areas where EPA personnel need to access in order to melt the ice. The PRP in consultation with his attorney originally denied access for Tetra Tech to conduct a safety inspection for the purposes of protecting the health and safety of EPA personnel. The PRP eventually agreed to the request under the conditions the engineer only inspect the areas necessary for the safe work of EPA personnel and a formal report not be generated for the inspection. The engineer stated the areas where work will be conducted are structurally not in imminent danger of collapsing and are safe for EPA's personnel to

conduct work. The engineer, however, noted two items to be aware of when working in the building. One issue is the areas of the walls insulated with cork or glass block insulation have either collapsed or are in danger of collapsing. The other issue is regarding the stability of the flooring along the southern wall on the second floor. The flooring is not sufficiently supported along the wall and could pose a threat to the health and safety of EPA personnel, however, EPA personnel will not be working in this area. Thawing operations are anticipated to continue through next week. Transportation and disposal of the collected fluids will begin on Monday, August 15, 2016. To date, approximately 15,000 gallons of melt water have been collected and approximately 35,000 gallons of brine solution have been collected.

Activities for the reporting period of 8/3/2016 - 8/5/2016 include:

EPA's refrigeration contractor was on site Wednesday, August 3, 2016. The pressure in the system was at approximately 6.5 psi indicating some vapor remained in the system. The vapor was removed from the system via the scrubber unit and the pressure in the system dropped to 0.5 psi. As of this afternoon, the pressure in the system was at 0.9 psi. Efforts to melt the ice in the building continue in order to defrost the refrigeration system and collect any remaining ammonia vapor. Once the system has thawed, EPA's refrigeration contractor will return to the site to remove any remaining ammonia vapor and perform a final inspection of the system. EPA will continue to collect the melt water and continue 24 hour air monitoring operations until the final inspection is complete and EPA, in conjunction with the members of Unified Command, are satisfied the ammonia has completely been removed from the system. Thawing operations are anticipated to continue through next week. To date, approximately 11,830 gallons of melt water have been collected.

**For detailed information on response actions prior to August 3, 2016, see the previous POLREPS.**

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

ORC issued the PRP an Administrative Order for Access on 7/18/2016. The PRP has not granted nor denied consent for removing the ammonia.

### **2.1.4 Progress Metrics**

<b><i>Waste Stream</i></b>	<b><i>Medium</i></b>	<b><i>Quantity</i></b>	<b><i>Treatment</i></b>	<b><i>Disposal</i></b>
Annhydrous Ammonia	vapor	9,700 lbs	recycle	recycle
Brine	liquid	37,310 gal	recycle	recycle
Melt water	liquid	3,686 gal	recycle	recycle
Scrubber fluid	liquid	18,686 gal	recycle	recycle

## **2.2 Planning Section**

### **2.2.1 Anticipated Activities**

#### **2.2.1.1 Planned Response Activities**

Complete transportation and disposal of remaining fluids and waste oil and demobilize all equipment and personnel from site.

#### **2.2.1.2 Next Steps**

Complete transportation and disposal of remaining fluids and waste oil and demobilize all equipment and personnel from site.

### 2.2.2 Issues

No issues were encountered during this reporting period.

### 2.3 Logistics Section

No information available at this time.

### 2.4 Finance Section

#### 2.4.1 Narrative

On June 24, 2016, the EPA Emergency and Remedial Response Division Director issued a verbal authorization for \$250,000 to remove the pressurized liquid anhydrous ammonia from the high-pressure receiver and outdoor condensers.

On June 30, 2016, the EPA Emergency and Remedial Response Division Director issued a verbal authorization for an increase of funding to \$500,000 to continue the emergency removal action.

#### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$450,000.00	\$353,000.00	\$97,000.00	21.56%
TAT/START	\$50,000.00	\$40,000.00	\$10,000.00	20.00%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	<b>\$500,000.00</b>	<b>\$393,000.00</b>	<b>\$107,000.00</b>	<b>21.40%</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

### 2.5 Other Command Staff

No information available at this time.

## 3. Participating Entities

### 3.1 Unified Command

The Unified Command includes EPA, NJDEP, the Vineland Fire Department/OEM, the City of Vineland and the facility owner.

### 3.2 Cooperating Agencies

## 4. Personnel On Site

EPA: 1 OSC

ERRS: 4

RST: 2

## **5. Definition of Terms**

EPA: United States Environmental Protection Agency

ERRS: Emergency and Rapid Response Services

RST: Removal Support Team

VFD: City of Vineland Fire Department

IMAAC: Interagency Modeling and Atmospheric Assessment Center

PAD: Public Affairs Division

CIC: Community Involvement Coordinator

OEM: Office of Emergency Management

OSC: On-Scene Coordinator

OSHA: Occupational Safety and Health Administration

NJDEP: New Jersey Department of Environmental Protection

NJDOH: New Jersey Department of Health

NJSP-OEM: New Jersey State Police Office of Emergency Management

BER: Bureau of Emergency Response

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

### **6.2 Reporting Schedule**

A final Polrep will be issued once transportation and disposal of remaining fluids and waste oil is complete and all equipment has been demobilized from the site.

## **7. Situational Reference Materials**

No information available at this time.